

Declaration For U.S. Patent Application

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

(Insert Title) Method and Apparatus for Dry-Etching Half-Tone Phase-Shift Films, Half-Tone Phase-Shift Photomasks and Method for the Preparation Thereof, and Semiconductor Circuits and Method for the Fabrication Thereof
the specification of which

(Check one of blocks 1,2 or 3. See note A on back of this page) 1. is attached hereto.

2 was filed on _____ as International PCT Application Serial No. _____ and was amended on _____ (if applicable)

3. was filed on _____ as U.S. Application Serial No. _____ and was amended on _____ (if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application for which priority is claimed:

	309010/1998 (Number)	Japan (Country)	29/October/1998 (Day/Month/Year Filed)	Priority Claimed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
(List prior foreign applications. See note B on back of this page)	_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
See note B on back of this page	_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No
(See Note C on back of this page)	_____	_____	_____	<input type="checkbox"/> Yes <input type="checkbox"/> No

See attached list for additional prior foreign applications

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(List Prior U.S. Applications)	(Application Serial Number)	(Filing Date)	(Status) (patented, pending, abandoned)

And I hereby appoint as principal attorneys David T. Nikaido, Reg.No 22, 663; Charles M. Marmelstein, Reg.No. 25,895; George E. Oram, Jr., Reg.No. 27,931; Robert B. Murray, Reg.No. 22,980; Martin S. Postman, Reg.No. 18,570; E. Marcie Emas, Reg.No. 32,131; Michael G. Gilman, Reg.No. 19,114; Douglas H. Goldhush, Reg.No. 33,125; Juan Carlos Marquez, Reg.No. 34,072; Robert L. Waddle, Reg.No. 35,795; Kevin C. Brown, Reg.No. 32,402; Monica F. Chin, Reg. No. 36,105.

Please direct all communications to the following address: NIKAIDO, MARMELSTEIN, MURRAY & ORAM
Metropolitan Square
655 Fifteenth Street, N.W., Suite 330 - G Street Lobby
Washington, D.C. 20005-5701
(202) 638-5000 Fax: (202) 638-4810

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

(See Note D on back of this page) Full name of sole or first inventor Takaei SASAKI
Inventor's signature Takaei Sasaki Date July 1, 1999
Residence Saitama-ken, Japan
Citizenship Japanese
Post Office Address c/o ULVAC COATING CORPORATION of 2804, Oaza Terao, Chichibu-shi, Saitama-ken, 368-0056 JAPAN

Full name of second joint inventor, if any Noriyuki HARASHIMA
Inventor's signature Noriyuki Harashima Date July 1, 1999
Residence Saitama-ken, Japan
Citizenship Japanese
Post Office Address c/o ULVAC COATING CORPORATION of 2804, Oaza Terao, Chichibu-shi, Saitama-ken, 368-0056 JAPAN

Full name of third joint inventor, if any _____
Inventor's signature _____ Date _____
Residence _____
Citizenship _____
Post Office Address _____

Full name of fourth joint inventor, if any _____
Inventor's signature _____ Date _____
Residence _____
Citizenship _____
Post Office Address _____

Full name of fifth joint inventor, if any _____
Inventor's signature _____ Date _____
Residence _____
Citizenship _____
Post Office Address _____

NOTES

- A. 1. For declaration to be filed with original U.S. (Non-PCT) Application Papers, check box 1.
2. For declaration to be filed in U.S. National Phase of PCT Application (either with original national phase entry papers or subsequent to expiration of 20 or 30 month term), check box 2, and complete information.
3. For declaration to be filed after original U.S. (Non-PCT) Application filing date, check box 3, and complete information.
- B. Please list all non-convention foreign applications relating to the invention (and check block "no"), as well as all convention (priority) applications.
- C. If more than 4 prior foreign applications, please check this box and attach a sheet listing the remaining prior foreign applications.
- D. For the Inventor's "Residence" only the city and state is necessary, however the "Post Office Address" must be an address acceptable by a Post Office for delivery of mail.

Declaration For U.S. Patent Application

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

(Insert Title) Method and Apparatus for Dry-Etching Half-Tone Phase-Shift Films, Half-Tone Phase-Shift Photomasks and Method for the Preparation Thereof, and Semiconductor Circuits and Method for the Fabrication Thereof

the specification of which

(Check one
of blocks
1,2 or 3.
See note A
on back of
this page)

1. is attached hereto.
 2. was filed on _____ as
 International PCT Application Serial No. _____
 and was amended on _____
 (if applicable)
 3. was filed on _____ as
 U.S. Application Serial No. _____
 and was amended on _____
 (if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application for which priority is claimed:

			Priority Claimed
	<u>309010/1998</u> (Number)	<u>Japan</u> (Country)	<u>29/October/1998</u> (Day/Month/Year Filed)
(List prior foreign applications. See note B on back of this page)			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

(See Note C on back
of this page)

See attached list for additional prior foreign applications

I hereby claim the benefit under Title 35, United States Code, § 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(List Prior U.S. Applications)	(Application Serial Number)	(Filing Date)	(Status) (patented, pending, abandoned)
	(Application Serial Number)	(Filing Date)	(Status) (patented, pending, abandoned)

And I hereby appoint as principal attorneys David T. Nikaido, Reg.No 22, 663; Charles M. Marmelstein, Reg.No. 25,895; George E. Oram, Jr., Reg.No. 27,931; Robert B. Murray, Reg.No. 22,980; Martin S. Postman, Reg.No. 18,570; E. Marcie Emas, Reg.No. 32,131; Michael G. Gilman, Reg.No. 19,114; Douglas H. Goldhush, Reg.No. 33,125; Juan Carlos Marquez, Reg.No. 34,072; Robert L. Waddle, Reg.No. 35,795; Kevin C. Brown, Reg.No. 32,402; Monica F. Chin, Reg. No. 36,105.

Please direct all communications to the following address: NIKAIDO, MARMELSTEIN, MURRAY & ORAM
Metropolitan Square
655 Fifteenth Street, N.W., Suite 330 - G Street Lobby
Washington, D.C. 20005-5701
(202) 638-5000 Fax: (202) 638-4810

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

(See Note D on back of this page) Full name of sole or first inventor Satoshi AOYAMA
Inventor's signature Satoshi Aoyama Date July 29, 1999
Residence Hyogo-ken, Japan
Citizenship Japanese
Post Office Address c/o Mitsubishi Denki Kabushiki Kaisha of 2-3, Marunouchi 2-chome Chiyoda-ku, TOKYO 100-8310 JAPAN

Full name of second joint inventor, if any Shouichi SAKAMOTO
Inventor's signature Shouichi Sakamoto Date July 29, 1999
Residence Hyogo-ken, Japan
Citizenship Japanese
Post Office Address c/o Mitsubishi Denki Kabushiki Kaisha of 2-3, Marunouchi 2-chome Chiyoda-ku, TOKYO 100-8310 JAPAN

Full name of third joint inventor, if any _____
Inventor's signature _____ Date _____
Residence _____
Citizenship _____
Post Office Address _____

Full name of fourth joint inventor, if any _____
Inventor's signature _____ Date _____
Residence _____
Citizenship _____
Post Office Address _____

Full name of fifth joint inventor, if any _____
Inventor's signature _____ Date _____
Residence _____
Citizenship _____
Post Office Address _____

NOTES

- A. 1. For declaration to be filed with original U.S. (Non-PCT) Application Papers, check box 1.
2. For declaration to be filed in U.S. National Phase of PCT Application (either with original national phase entry papers or subsequent to expiration of 20 or 30 month term), check box 2, and complete information.
3. For declaration to be filed after original U.S. (Non-PCT) Application filing date, check box 3, and complete information.
- B. Please list all non-convention foreign applications relating to the invention (and check block "no"), as well as all convention (priority) applications.
- C. If more than 4 prior foreign applications, please check this box and attach a sheet listing the remaining prior foreign applications.
- D. For the Inventor's "Residence" only the city and state is necessary, however the "Post Office Address" must be an address acceptable by a Post Office for delivery of mail.